Iran J Parasitol, Supplementary Issue, Vol. 10, No. 1, May 2015
Proceedings of 2nd International and 9th National Congress of Parasitology and Parasitic Diseases of Iran (NICOPA 9)
Guilan, Iran; 20-22 May 2015

PREVALENCE, FERTILITY AND VITAL POWER OF HYDATID CYST IN SINGLE-HUMPED CAMELS SLAUGHTERED IN INDUSTRIAL ABATTOIR OF QOM PROVINCE

Karimi S.[1], Salimi-Bejestani M.R.[2], Gavanshir A[3], Sarkeshik S.M[4], Jafari H[3]. Barani S.M.[4], Rafei E. Mohmmadi[4], Masomi S[4], Yazdandoost M[4], Hoseini M[4]
1 – BSc Student of Veterinary Laboratory Science, School of Veterinary Medicine, Semnan University, Semnan, Iran.
*2- Pathobiology Department, Faculty of Veterinary Medicine, Semnan University, Semnan, Iran. msalimi@semnan.ac.ir
3- MSc. of Parasitology of University Shahrekord, Iran.
4- Veterinary Office of Qom, Iran.

Introduction and Objectives: Hydatidosis is a common disease of humans, animals, domestic and wild carnivores. In humans this disease cause varies injuries and sometimes leads to death. Hydatidosis in animals, especially livestock, cause great economic losses. Dogs, the reservoir hosts of the parasite, excreted eggs with the feces in the fields, contaminate water, plants and vegetables. Humans, who have history of close contact with dogs and consumption of contaminated water and vegetables and ruminants fed forage contaminated with parasite eggs, acquire hydatidosis. Hydatid cyst is a health and economic problem for countries where the disease is endemic. Hydatid cyst is an endemic disease in many parts of Asia, Europe, South America, Middle East, Australia and New Zealand. The disease has a worldwide distribution but the highest rate of infection is in the Mediterranean region, including Iran. Disease has been reported from all provinces of Iran. Among the intermediate hosts, sheep is the most suitable host and play a more important role in distribution of disease.Material and Methods: This review was done for a period of six months of 2013 (summer and autumn) in the slaughter health inspection at the industrial abattoir of Qom province. A total of 190 carcasses of one humped camels were examined. Sampling was performed from livers and the lungs of infected camels. In the laboratory, the cysts fluids were removed by the syringe and were collected in a glass, to determine fertile or sterile cysts by the macroscopic (sedimentation in the tubes) and microscopic (after centrifuge on coverslip) observations. In this study, the incidence of pulmonary and liver hydatid cysts were 60.5% and 46.3% respectively, and liver and pulmonary hydatid cyst fertility rates were 82.6% and 72.7%. Critical power of liver and lung cysts were determined 92.6% and 89.06% respectively. Discussions: The results obtained in this study seem to struggle with hydatidosis is essential and implementation of a program for controlling can have an important role in reducing infections. For example, the control of stray dogs prevented from releasing the thousands of eggs to the environment and with obliterate the infected offal in abattoirs, creating millions of adult worms in the small intestine of dogs is prohibited. After the implementation of a program to control of hydatidosis, what is important is the continuation of measures to safeguard the results obtained from implementing the program.

Keywords: hydatid cyst, camel, vital power, fertility, *Echinococcus granolosus*, Qom

PRELIMINALRY STUDY ON MOLECULAR CHARACTERIZATION OF ECHINOCOCCUS GRANULOSUS ISOLATES IN CHABAHAR، SISTAN AND BALUCHESTAN PROVINCE، IRAN BY COX1 GENE

Soudabeh Etemadi*[1] , Soudabeh Heidari[1] , Zahra Heidari[1] , Mohammad Momeni[2] , Parvaneh Sarani Ali Abadi[3] , Bahareh Kamranrashani[4] , Eshrat Beigom Kia[5]
* 1- Ph.D Student, Department of Medical Parasitology and Mycology, School of Public Health, Tehran University of Medical Sciences, Tehran, Iran setemadi@razi.tums.ac.ir
2- BSc., Staff Member، Imam Ali Hospital، Chabahar، Iran.
3- Instructor, Department of Medical–Surgical Nursing, Faculty of Nursing and Midwifery, Islamic Azad University, Zahedan Branch, Zahedan, Iran.
4- BSc., Department of Medical Parasitology and Mycology, School of Public Health, Tehran University of Medical Sciences, Tehran, Iran.
5- Ph.D, Department of Medical Parasitology and Mycology, School of Public Health, Tehran University of Medical Sciences, Tehran, Iran.

Echinococcus granulosus is the causal agent of cystic hydatid disease in man and animals. The aim of this study was to characterize the isolates of *E. granulosus* from sheep and cattel by sequence analysis of cytochrome C oxidase subunit I (COX1) mitochondrial partial gene. Martial & Methods: Two isolates of hydatid cysts، one from liver of sheep and other one from lung of cattel were collected from an abbatoir in Chabahar، Sistan and Baluchestan Province، Iran in 2014. The isolates were preserved in ethanol alchohol and transported to the Dept. of Medical Parasitology and Mycology، School of Public Health، Tehran University of Medical Sciences. DNA was extracted using a DNA kit from germinal layer and then the PCR amplification was performed for mitochondrial cox1 gene. The PCR products were sequenced after purification. The nucleotide sequences were edited by Chormas 2.4 software، and aligned by BLAST. Then، they were compared to those in the GenBank database. Result: Both *E. granulosus* isolates were determined as G1 strain. Their sequences had 99% homology with accession numbers KM 100573 and JQ250814 in GenBank.Similar to other parts of Iran, this preliminary study verifies the G1 genotype of *E. granulosus* as the probable dominant genotype in the study area.

Keywords: *Echinococcus granulosus*، COX1، G1 genotype، Iran